

PRYANISHKOVA, M. A.

PA 192T24

USSR /Chemistry - Pyridine
Derivatives

Jul/Aug 51

"Brief Communication: Action of Ethylene Oxide on α -Aminopyridine and on N-Alkyl- α -Pyridonimines," Ya. L. Gol'darb, M. A. Pryanishnikova, Inst of Org Chem, Acad Sci USSR

"IZ Ak Nauk SSSR, Otdel Khim Nauk" No 4, pp 457, 458

Concluded that presence of H₂O or alc is necessary for reaction of α -aminopyridine with ethylene oxide to yield N-(β -hydroxyethyl)- α -pyridonimine:

192T24

USSR/Chemistry - Pyridine
Derivatives (Contd) Jul/Aug 51

Proposed mech of reaction. N-Alkyl- α -pyridonimines react with ethylene oxide at normal temps to form corresponding hydroxyethyl derivs. Distn of product of interaction of α -aminopyridine with ethylene oxide yielded high-boiling "oil" (not yet analyzed), probably disubstituted α -aminopyridonimine. Details will appear in later report.

192T24

GOL'DFARB, Ya. L.; PRYANISHNIKOVA, M. A.; ZHUKOVA, K. A.

Pyridine

Relative basicity of nitrogen atoms in compounds of the type of α -aminopyridine and of the type of N-alkyl- α -pyridonimine. Izv. AN SSSR. Otd. khim. nauk No. 1, 1953.

Monthly List of Russian Accessions, Library of Congress, June 1953. Uncl.

PRYANISHNIKOVA, M.A.

5

Relative basicities of atoms of nitrogen in compounds of
the type of 2-aminopyridine and *N*-alkyl-2-pyridonimine.
Ya. L. Gol'dfarb, M. A. Pryanishnikova, and K. A. Zhukova.
Bull. Acad. Sci. USSR, Div. Chem. Sci. 1955,
129-35 (Engl. translation).—See C.A. 48, 33581.

H. L. H.

Pryanishnikova, M. A.

Chemical Abst.
Vol. 48 No. 6
Mar. 25, 1954
Organic Chemistry

Relative basicity of atoms of nitrogen in compounds of the type of 2-aminopyridine and of the type of *N*-alkyl-2-pyridamine. V. I. Godtfeldt, M. A. Pryanishnikova, and K. A. Zhdanov. *Zhur. Obshch. Khim.* 24, 146-53. (1954). *J. Russ. Phys.-Chem. Soc.* 18, 112-13. (1886). *Khim. Neft. 1953, 146-53.* Spectrometric methods showed that the salt-forming center in the above types of *N*-derivs. are, resp.: the nuclear N atom in the 2-aminopyridine type, and the extranuclear N atom in the pyridamine type. The latter in dil. acidic form structures of aminepyridinium salts. The following absorption max. (m_s) and log E were obtained: 2-aminopyridine, in heptane 280 (3.4) and 284 (4), in dioxane 286 (3.6) and 288 (4.1); in eq. dioxane 286 (3.7) and 288 (4.1), in EtOH 280 (3.6) and —, in 0.04*N* HCl 201 (3.7) and 223 (3.9); 3-methylamino-2-pyridine, in heptane 286 (3.4) and 244 (4), in dioxane 286 (3.5) and 248 (4.2), in eq. dioxane 286 (3.3) and 248 (4.2), in EtOH 286 (3.6) and —, in 0.04*N* HCl 200 (3.6) and —, in H₂O 286 (3.4) and 246 (4); 2-(benzylamino)-pyridine, in dioxane 286 (3.4) and 247 (4), in eq. dioxane 287 (3.5) and 246 (4), in 0.04*N* HCl 200 (3.7) and 288 (4.1); *N*-methyl-2-pyridamine, in heptane 286 (3.3) and 207 (3.8), in dioxane 248 (3.3) and 288 (4.1), in eq. dioxane 286 (3.3), 280 (3.8), and 282 (3.4), in 0.04*N* HCl 200 (3.6) and —; in EtOH 200 (3.6) and —, *N*-methyl-2-pyridinium, in heptane 280 (3.6) and 288 (3.7), in dioxane 263 (3.5) and 287 (3.8), in eq. dioxane 206 (3.6) and 237 (3.8), in 0.04*N* HCl 200 (3.7) and —; *N*-2-hydroxyethyl-2-pyridamine, in dioxane 286 (3.6) and 288 (4), in eq. dioxane 206 (3.6) and 238 (3.7), in EtOH 206 (3.6) and 286 (3.7), in 0.04*N* HCl 200 (3.7) and —, in H₂O 203 (3.6) and 238 (3.9); 1-Methyl-2-(1-methyl-2-pyridinyl)-2-pyridamine, in heptane 280 (3.6) and 288 (4), in dioxane 286 (3.6) and 288 (4), in eq. dioxane 206 (3.7) and 280 (3.7); in 0.04*N* HCl 210 (3.7) and 286 (3.8), in H₂O 206 (3.7) and 284 (3.7). The actual curves are reproduced.

G. M. Kosolapoff

ALEKSANYAN, V.T.; STERIN, Kh.Ye.; LIBERMAN, A.L.; MIKHAYLOVA, Ye.A.
PRYANISHNIKOVA M.A.; KAZANSKIY, B.A.

Report no.8. Raman spectra of a few aromatic hydrocarbons.
Izv.AN SSSR.Ser.fiz.19 no.2:225-233 Mr-Ap '55. (MLRA 9:1)

1.Komissiya po spektroskopii i Institut organicheskoy khimii
imeni N.D.Zelinskogo Akademii nauk SSSR.
(Tartu--Spectrum analysis--Congresses)

Pryanishnikova, M. A.

6

CH Action of ethylene oxide on 2-aminopyridine and on *N*-alkyl-2-pyridonimines. Ya. L. Gol'dfarb and M. A. Pryanishnikova [Inst. Org. Chem., Acad. Sci. U.S.S.R., Moscow, Zinov'ev, *Obozr. Khim.* 25, 1003-13 (1955).] Keeping 26.7 g. 2-aminopyridine in 15 ml. dry MeOH with 13 g. ethylene oxide 4 days gave 20% *N*-(2-hydroxyethyl)-2-pyridonimine, *b*₄ 108-70° (crude), *m.* 127-8° (from EtOH); *HCl salt*, *m.* 140-7.5°. No reaction took place in dioxane, but in aq. dioxane the yield of the hydroxyethyl deriv. reached 25% in 2.5 days. A very low yield of this was formed in dry Me_2CO . Mixing 5.5 g. *N*-methyl-2-pyridonimine (I) with 2.7 g. $\text{CH}_2=\text{CHCN}$ and, after subsidence of initial reaction, heating the mixt. in sealed tube 3 hrs. at 100° gave 3.7 g. *N*-methyl-2-pyridone (2-cyanoethyl)imine, *b*₄ 169-70°, which solidified on standing; this rapidly absorbed CO_2 and H_2O from the atm. Heating 9.8 g. BzH with 10 g. I in 21.2 g. dry HCOH 8 hrs. to 150° and finally to 170°

gave 4.4 g. *N*-methyl-2-pyridone benzylimine, *b*₄ 124-5°, *picrate*, *m.* 123.5°. Heating 10 g. *N*-(2-hydroxyethyl)-2-pyridonimine with 7.7 g. BzH and 16.6 g. dry HCOH 20 hrs. gave 0.4 g. starting material and 33% *N*-(2-hydroxyethyl)-2-pyridone benzylimine (II), *b*₄ 191-3°; *picrate*, *m.* 115-15.6° (from EtOH). Keeping *N*-(2-hydroxyethyl)-2-pyridonimine with PhCH_2J in EtOH at room temp. gave 30% II. Ethylene oxide and *N*-benzyl-2-pyridonimine in MeOH gave in several days at room temp. about 60% *N*-benzyl-2-pyridone (2-hydroxyethyl)imine, *b*₄ 187-90° (crude), *HCl salt*, *m.* 160-72°; the pure base, *b*₄ 171.5-2.5°. Similar reaction of I gave in 4 days some 25% *N*-methyl-2-pyridone (2-hydroxyethyl)imine, *b*₄ 145.5-6.6°; *picrate*, *m.* 115-16°; *HCl salt*, *m.* 147-9°. Almost no reaction occurred in dry dioxane, while in moist dioxane a low yield of the above

product formed. Hydrolysis of the product with 25% NaOH 4 hrs. gave *N*-methyl-2-pyridone and $\text{HOCH}_2\text{CH}_2\text{NH}_2$. Fractionation of higher fractions of the reaction products of 2-aminopyridine with ethylene oxide gave a low yield of *N*-(2-hydroxyethyl)-2-pyridone (2-hydroxyethyl)imine, *m.* 71-2°; *HCl salt*, *m.* 123-4.5°; *picrate*, *m.* 119-20.5°. This formed from the action of ethylene oxide on *N*-(2-hydroxyethyl)-2-pyridonimine in moist Me_2CO in 1 month at room temp.; the yield was about 10%, the product being isolated by distn., *b*₄, 170-82°. Hydrolysis of this material with 10% NaOH gave after 8 hrs. $\text{HOCH}_2\text{CH}_2\text{NH}_2$ and *N*-(2-hydroxyethyl)-2-pyridone. O. M. Kosolapoff

PRYANISHNIKOVA, M.A.

Preparation of bicyclo[2.2.1]hepta-2,5-diene by the condensation of cyclopentadiene with acetylene. A. F. Plate and M. A. Pryanishnikova. Bull. Acad. Sci. U.S.S.R. Div. Chem. Sci. 1956, 753-4 (English translation). See C.A. 51, 1803f.

Chem
R.M.R.

2

Ryanishnikov, M. A.

Physical properties of some homologs of isodurene.
L. Liberman, M. A. Pryanishnikov, and B. A. Kazanaki
(N.D. Zelinskii Inst. Org. Chem. Acad. Sci. U.S.S.R.,
Moscow). Izvest. Akad. Nauk S.S.R., Otdel. Khim.
Nauk 1956, 1000-5.—The following hydrocarbons were
prep'd. in better than 99.5% purity for the first time. Bro-
mination of mesitylene in the cold in CCl₄ gave 80% 2-bromo-
mesitylene, purified by careful fractionation, bp 115°, m.
1.5°, n_D²⁰ 1.5527, d₄ 1.3220. This converted to Grignard
reagent (I) under N (EtBr promoter) and treated with Et₂
SO₄ gave 2-ethylmesitylene, purified chromatographically on
silica gel, bp 99.3°, m. -12.1°, n_D²⁰ 1.5103, n_D²⁰ 1.5080, d₄
0.8859, d₄ 0.8924. Similarly, >MeC₂H₅SO₃Pr gave crude
2-propylmesitylene, which was freed of bromomesitylene by
heating with Mg in Et₂O (some EtBr added), yielding fin-
ally the pure substance, bp., 100.2°, m. -20.5°, n_D²⁰
1.5052, n_D²⁰ 1.5029, d₄ 0.8782, d₄ 0.8744. I with CH₃-
CHCH₂Cl gave crude 2-allylmesitylene, bp 113-36°, which
was purified with Mg, as above, yielding pure product, bp
105.5°, m. -2.1°, n_D²⁰ 1.5192, d₄ 0.8930. Freezing curves
of the hydrocarbons were shown. — G. M. Kosolapoff

PRYANISHNIKOVA, M.A.

✓ Physical properties of cis-1,3,5-trimethylcyclohexane.
A. I. Liberman, M. A. Pryanishnikova, and B. A. Kuznetsov
(N. D. Zelinskii Inst. Chem. Acad. Sci. U.S.S.R.,
Moscow). *Izvest. Akad. Nauk S.S.R., Otdel. Khim.
Nauk* 1956, 1142-3; cf. Bykman, *C.A.* 56, 733; Eisenlohr,
C.A. 56, 171; Chiurdoglu, *C.A.* 46, 910g. Very pure
mesitylene, b.p. 103°, n_D^{20} 1.4993, d_4^{20} 0.8662, was hydro-
genated over Pt-C at 180-5° at atm. pressure yielding 1,3,5-
trimethylcyclohexane, which contained a little trans isomer.
Careful fractionation gave the cis isomer, with purity of at
least 99.5% (checked by cryoscopic method), b.p. 138.4°, f.p.
-43.2°, n_D^{20} 1.4283, d_4^{20} 0.7892. Chiurdoglu's specimen
(*loc. cit.*) on the basis of its consts. must contain 15% trans
isomer. G. M. Kosolapoff

PLATE, A.F.; PRYANISHNIKOVA, M.A.

Preparation of bicyclo-2,2,1-heptadiene-2,5 by the condensation of cyclopentadiene with acetylene. Izv.AN SSSR Otd.khim.nauk no.6:
741-742 Je '56. (MLRA 9:9)

1.Institut organicheskoy khimii imeni N.D.Zelinskogo Akademii nauk
SSSR.

(Bicycloheptadiene)

20-6-19/42

Spectral Method of Determination of the Number and Position of Side
Chains in the Molecules of Benzene Homologues

ferent construction of the spectra renders possible the spectral identification of the molecules of these substances. Table 2 gives the strip frequency of the pure-electronic transitions within the investigated spectra. All the hydrocarbons investigated have been produced as high-pure compounds at the above mentioned purpose and their purity has been proved. There follows an experimental part with the usual data. There are 1 figure, 2 tables, and 3 Slavic references.

ASSOCIATION: Institute for Physics AN Ukrainian SSR , Institute for Organic Chemistry imeni N. D. Zelinskiy AN USSR (Institut fiziki Akademii nauk USSR, Institut organiceskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR)

PRESENTED: May 24, 1957, by B. A. Kazanskiy, Academician

SUBMITTED: May 24, 1957

AVAILABLE: Library of Congress
Card 3/3

SOV/70-28-11-49/55

AUTHORS: Volodkovich, S. D., Mel'nikov, N. N., Plate, A. F.,
Fryanishnikova, M. A.

TITLE: From the Field of Organic Insecticides (Iz oblasti organicheskikh insektofungitsidov) XXXV. On the Reaction of the 1,1-Difluoro-Tetrachloro-Cyclopentadiene With Some Unsaturated Compounds (XXXV. O vzaimodeystvii 1,1-diftortetrakhloritsiklo-pentadiyena s nekotoryimi nepredel'nymi soyedineniyami)

PERIODICAL: Zhurnal obshchey khimii, 1958, Vol 28, Nr 11, pp 3123-3126
(USSR)

ABSTRACT: In the investigation of the effect of the chlorine containing insecticides of the type of "aldrine", "dildrine", and their analogs as well as the dependence of the fatal effect of these compounds on insects upon the molecular structure it was of some interest to investigate in this respect the hitherto unknown fluorine containing analogs of "aldrine". First the following compounds were synthesized by the reaction of 1,1-difluoro-tetrachloro-cyclopentadiene with bicyclo-(2,2,1)-heptadiene-2,5 and bicyclo-(2,2,1)-heptene-2: 1,2,3,4-

Card 1/3

SOV/79-28-11-49/55

From the Field of Organic Insecticides. XXXV. On the Reaction of the 1,1-Difluoro-Tetrachloro-Cyclopentadiene With Some Unsaturated Compounds

tetrachloro-10-10-difluoro-1,4,5,8-diendomethylene-1,4,4a,5,6,8a-hexahydronaphthalene, and 1,2,3,4-tetrachloro-10,10-difluoro-1,4,5,8-dienomethylene-1,4,4a,5,6,7,8,8a-octahydronaphthalene. As the next analogs of "aldrine" they are of great interest. Besides, the adducts of the 1,1-difluoro-tetrachloro-cyclopentadiene with cyclopentene, 5-amyl bicyclo-(2,2,1)-heptene-2,5-methyl bicyclo-(2,2,1)-heptene-2-carboxylic acid-5, acryl nitrile and the esters of maleic acid were synthesized (Table). The reaction of the above pentadiene with the mentioned unsaturated compounds takes place easily, the yields are, however, small as it is easily polymerized and transformed into the inert dimer. All synthesized compounds have a weak insecticide effect. Only the difluoro "aldrine" is an exception as its insecticide effect is similar to that of the chloro indan. There are 1 table and 10 references, 7 of which are Soviet.

Card 2/3

SOV/79-28-11-49/55

From the Field of Organic Insecticides. XXXV. On the Reaction of the 1,1-Difluoro-Tetrachloro-Cyclopentadiene With Some Unsaturated Compounds

ASSOCIATION: Nauchnyy institut po udobreniyam i insektofungitsilam i Institut organicheskoy khimi i Akademii nauk SSSR
(Scientific Institute of Fertilizers and Insecti- and Fungicides,
and the Institute of Organic Chemistry, AS USSR)

SUBMITTED: November 1, 1957

Card 3/3

NEFEDOV, B.K.; EYDUS, Ya.T.; PRYANISHNIKOVA, M.A.; IVANOVA, T.M.

Catalytic hydrocondensation of carbon monoxide with olefins
and their hydropolymerization under the effect of carbon
monoxide and hydrogen. Report No.38: Conversions of toluene
and cyclohexatriene under conditions of hydrocondensation.
Izv. AN SSSR. Ser. khim. no.10:1860-1866 O '64.

(MIRA 17:12)

I. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.

PLATE, A.F.; PRYANISHNIKOVA, M.A.

Synthesis and properties of bicyclo[2,2,1]-2,5-heptadiene,
an intermediate product for the preparation of the insecti-
cides aldrin and dieldrin. Zhur.prikl.khim. 38 no.9:2072-
2078 S '65. (MIRA 18:11)

L 9427-66 EWT(m)/EWP(j) RM

ACC NR: AP5027728

UR/0065/65/000/009/0042/0046

65.061.5 4

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71

AUTHOR: Englin, B.A.; Plate, A.F.; Tugolukov, V.M.; Pryanishnikova, N.A.

TITLE: Water solubility in individual hydrocarbons

SOURCE: Khimiya i tekhnologiya topliv i masel, no. 9, 1965, 42-46

TOPIC TAGS: solubility, water, hydrocarbon, aromatic hydrocarbon, alkyl radical, atomic structure, molecular weight, carbon, fuel, aviation gasoline, ice, crystal, solvent action, organic solvent, solution concentration

ABSTRACT: This research was carried out because the available data on water solubility is confined to a limited number of hydrocarbons and are frequently inconsistent. The experiments were carried out with 61 hydrocarbons of different classes at various temperatures. The experimental results show that 1) water solubility in hydrocarbons is greatly affected by the hydrocarbon structure; 2) water solubility is highest in aromatic hydrocarbons particularly in benzene; 3) water solubility in aromatic hydrocarbons is mainly conditioned by the molecular weight and side-chain branching of the hydrocarbons, decreasing more drastically with increase in molecular weight and less drastically with side-chain branching; 4) substitution of a five-member cycloalkyl radical for an alkyl radical in the aromatic ring has no substantial effect on the water solubility; 5) water solubility in bicyclic aromatic hydrocarbons is higher than

Card 1/2

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ACC NR: AP5027728

in monocyclic containing the same number of carbon atoms; 6) water solubility in naphthenic hydrocarbons and paraffins also decreases with an increase in molecular weight but to a lesser degree than in aromatic hydrocarbons; 7) water solubility in paraffins increases with an increase in branching; 8) at the same molecular weight all six-member naphthenic hydrocarbons dissolve less water than the five-member hydrocarbons; 9) naphthenic hydrocarbons with alkyl groups of normal structure as side chains are capable of dissolving more water than normal paraffins of corresponding molecular weight; 10) bicyclic naphthenic hydrocarbons dissolve considerably less water than monocyclic hydrocarbons with the same number of carbon atoms; 11) unsaturated hydrocarbons are capable of dissolving more water than naphthenic hydrocarbons and paraffins of corresponding structure, but water solubility in unsaturated hydrocarbons is lower than in aromatic hydrocarbons differing in this respect with data by J.W. Gibbs. Collected Work. New York, 1931 and C. Black et al. J. Chem. Phys., v. 16, no. 5, 1945; and 12) bicyclo [2.2.1] heptadiene dissolves less water than its isomeric toluene but more than methyl cyclohexane having the same number of carbon atoms; the same is true of 1,4,5,8 - Bisendomethylene - 1,4,4a,5,8,8a - hexahydronaphthalene. It is noted that the water solubility in cycloheptatrien is greater than even in toluene. Orig. art. has: 1 figure and 1 table.

ASSOCIATION: none

SUBMITTED: 00

NO REF SOV: 009

ENCL: 00

SUB CODE: FP, GC

OTHER: 004

Card 2/2 sds

GOLYKIN, G.V.; PRYANISHNIKOVA, M.A.; KONONOV, N.F.; PLATE, A.F.; ZARUTSKIY, V.V.

Preparation of bicyclo[2.2.1]hepta-2,5-diene; effect of the nature
of phlegmatizer, temperature, pressure, and cyclopentadiene feed
rate. Izv. AN SSSR. Ser. khim. no.10:1850-1855 '65.

(MIRA 18:10)

I. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.

SOBOLEV, Ye.V.; ALEKSANYAN, V.T.; MIL'VITSKAYA, Ye.M.; PRYANISHNIKOVA, M.A.

Vibrational spectra of cyclic hydrocarbons with conjugate double bonds. Zhur.strukt.khim. 4 no.2:189-193 Mr-Ap '63. (MIRA 16:5)

1. Komissiya po spektroskopii AN SSSR.
(Hydrocarbons--Spectra) (Conjugation (Chemistry))

PRYANISHNIKOVA, M.A.; DUGACHEVA, G.M.; PLATE, A.F.; ANIKIN, A.G.

Temperatures of crystallization of bicyclo[2.2.1]-2,5-heptadiene,
cycloheptatriene and their mixtures. Dokl. AN SSSR 132 no.4:
857-860 Je 60. (MIRA 13:5)

1. Institut organicheskoy khimii im. N.D.Zelinskogo Akademii nauk
SSSR i Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.
Predstavлено академиком B.A.Kazanskim.
(Bicycloheptadiene) (Cycloheptatriene)

33285
S/191/62/000/002/005/008
B127/B110

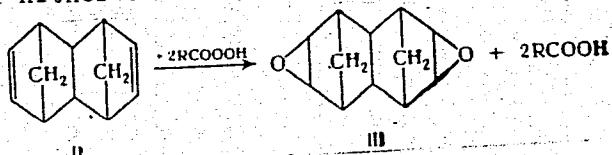
15 8121 1407

AUTHORS: Gosteva, O. K., Libina, S. L., Pryanishnikova, M. A.
Akutin, M. S., Plate, A. F.

TITLE: Production of 2,3,6,7-dioxide of 1,4,5,8-diendomethylene-
1,4,4a,5,8,8a-hexahydro naphthalene

PERIODICAL: Plasticheskiye massy, no. 2, 1962, 55

TEXT: According to J. A. Trigaux (Modern Plastics, 38, no. 1, 147 (1960)), specially heat-resistant epoxy resins are obtained on the basis of dicyclopentadiene. In the present study, 1,4,5,8-diendomethylene-dicyclopentadiene. In the present study, 1,4,5,8-diendomethylene-dicyclopentadiene developing from bicyclo-(2,2,1)-hepta-1,4,4a,5,8,8a-hexahydronaphthalene was investigated. In the epoxy resinification of diendomethylene hexahydro naphthalene with monoperphthalic acid in ether at 30°C, a hitherto unknown dioxide was obtained:



Card 1/2

Production of 2,3,6,7-dioxide...

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S/191/62/000/002/005/008

B127/B110

The yield was 50 %. The monomer forms white crystals, melting point 179.5°C. II is a byproduct of the manufacture of the insecticide "al'drin". The analysis of the C- and H content corresponded to the formula

$C_{12}H_{14}O_2$. The infrared spectrum of the dioxide shows an intensive line at 847 cm^{-1} which belongs to the C-O group in the epoxy group. The disappearance of the line at 1570 cm^{-1} , which corresponds to the C=C double bond, proves completeness of resinification. The absence of the line in the range $3200\text{--}3600\text{ cm}^{-1}$, characteristic of hydroxyl groups, confirms the purity of the product obtained. There are 1 figure and 5 references: 3 Soviet and 2 non-Soviet. The reference to the English-language publication reads as follows: O. D. Shreve, M. R. Heether, H. B. Knight, D. Swern, Anal. Chem., 23, 277 (1951). X

Card 2/2

15.8063

31747
S/204/61/001/004/005/005
E075/E185

AUTHORS: Polyakova, A.M., Plate, A.F., Pryanishnikova, M.A.,
and Lipatnikov, N.A.

TITLE: Investigation of the polymerization under pressure of
some cyclic unsaturated hydrocarbons:
bicyclo-(2,2,1)-heptane-2, bicyclo-(2,2,1)-heptadiene-
2,5, and cycloheptatriene

PERIODICAL: Neftekhimiya, v.1, no.4, 1961, 521-527

TEXT: The polymerization of bicyclo-(2,2,1)-heptane-2,
bicyclo-(2,2,1)-heptane 2,5 and cycloheptatriene was investigated
under 6000 atm using tertiary butylperoxide as reaction initiator.
An attempt was made also to evaluate relative reactivities of
these hydrocarbons at atmospheric pressure in the presence of an
ionic catalyst $TiCl_4$. The aim of this work was to obtain polymers
possessing high thermal stability. The pressure polymerizations
were carried out in lead ampules, and the corresponding
experiments under atmospheric pressure in glass ampules.
Temperature of the pressure polymerizations ranged from 130 to
200 °C. The polymerizations with $TiCl_4$ as initiator were carried

Card 1/3

Investigation of the polymerization

31747
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E075/E185

out at 72 °C in methylene chloride solution. It was found that for the pressure polymerizations the molecular weight and yields of the polymers increase with temperature. The same applies to the mechanical properties of the polymers. The polymer with the highest softening temperature was prepared at 200 °C. The polymerization under atmospheric pressures gave relatively low molecular weight polymers with low yields. Polydicycloheptadiene obtained under pressure did not soften below 400 °C. The effects of pressure and temperature on the polymerization of cycloheptatriene are the same as for bicycloheptene but are more accentuated. Polycycloheptatrienes have the highest thermal stability and are all insoluble. The polymers obtained with TiCl₄ as initiator have relatively low molecular weights and are obtained with low yields, but have similar thermal stabilities to the polymers obtained under pressure. Infrared spectra obtained for the monomers and polymers indicated that only very small proportion of double bonds are present in the polymers. X-ray examination indicates that all the polymers are amorphous.

Card 2/3

31747

Investigation of the polymerization... S/204/61/001/004/005/005
E075/E185

There are 7 figures, 1 table and 8 references; 6 Soviet-bloc and 2 non-Soviet-bloc. The English language references read as follows:

Ref. 1: A.W. Anderson, N.G. Merckling, US Pat. 2721189, 1955.
Ref. 2: E.I. du Pont de Nemours and Co. Brit. Pat. 777414, 1957,
C.A. 51, 12546 d, 1957.

ASSOCIATION: Institut elementoorganicheskikh soedineniy AN SSSR
(Institute of Elementary Organic Compounds, AS USSR).

Institut organicheskoy khimii AN SSSR im.

N.D. Zelinskogo

(Institute of Organic Chemistry, AS USSR, imeni
N.D. Zelinskogo)

SUBMITTED: May 31, 1961

Card 3/3

X

KOLESNIKOV, G.S.; SUPRUN, A.P.; SOBOLEVA, T.A.; PLATE, A.F.;
SLONIMSKIY, G.L.; PRYANISHNIKOVA, M.A.; TARASOVA, G.A.

Carbochain polymers and copolymers. Part 21 : Copolymers based
on bicyclo [2.2.1]hepta-2,5-diene and 1,2,3,4,7,7-hexachlorobicyclo
[2.2.1]hepta-2,5-diene. Vysokom. soed. 2 no. 3:451-455 Mr '60.
(MIRA 13:11)

1. Institut elementoorganicheskikh soyedineniy i Institut
organicheskoy khimii im.N.D.Zelinskogo AN SSSR.
(Bicycloheptadiene) (Polymers)

PETROV, A.D.; PLATE, A.F.; CHERNYSHEV, Ye.A.; DOLGAYA, M. Ye.; BELIKOVA, N.A.; KRASNOVA, T.L.; LEYTES, L.A.; PRYANISHNIKOVA, M.A.; TAYTS, G.S.; KOZYRKIN, B.I.

Preparation of organosilicon derivatives of bicyclo [2.2.1] heptane. Zhur. ob. khim. 31 no.4:1199-1208 Ap '61. (MIRA 14:4)

1. Institut organicheskoy khimii Akademii nauk SSSR.
(Bicycloheptane) (Silicon organic compounds)

S/062/60/000/012/011/020
B013/B054

AUTHORS: Pryanishnikova, M. A., Mil'vitskaya, Ye. M., and Plate, A.F.

TITLE: The Problem of Producing Cycloheptatriene

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk,
1960, No. 2, pp. 2178-2185

TEXT: The authors studied the possibility of producing cycloheptatriene from cyclopentadiene and acetylene in one step without separating the intermediate bicycloheptadiene. The experiments were conducted in a continuous system (Fig. 4) at temperatures of 390-415°C and pressures of 5-7 atm. It was found that a temperature increase raises the yield in cycloheptatriene, but reduces that in bicycloheptadiene. At higher pressure, a better result is obtained at lower temperatures. 20% of cycloheptatriene, besides 20-25% of bicyclo-(2,2,1)-heptadiene-2,5, is formed at 400-405°C and 7 atm acetylene pressure. The yield also depends on the rate of supply of cyclopentadiene (Fig. 2). At a slower supply rate (12 ml/h instead of 23 ml/h), the cycloheptatriene yield rises from 13 to 22%. At very fast supply rates, cyclopentadiene has not sufficient time

Card 1/3

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The Problem of Producing Cycloheptatriene

S/052/60/000/012/011/020

B013/B054

to react. The effect of acetylene pressure on thermal isomerization of bicyclo-(2.2.1)-heptadiene-2,5 was studied in the same continuous system at 397°C. Experiments without acetylene were conducted for comparison. Results are given in Fig. 3 and Table 2. It was shown that acetylene pressure reduces the decomposition of bicyclo-(2.2.1)-heptadiene into cyclopentadiene and acetylene, and gives higher cycloheptatriene yields. At 397°C, a pressure increase from atmospheric pressure to 7.2 atm increased the cycloheptatriene yield from 34.8% to 53.5% referred to bicycloheptadiene. The contact time is another important factor influencing the cycloheptatriene yield. The yield increases with increasing contact time. During thermal isomerization of bicycloheptadiene, resinification is negligible; it is at most 0.1% at acetylene pressure, and even less at atmospheric pressure. There are 6 figures, 3 tables, and 19 references: 5 Soviet

ASSOCIATION: Institut organicheskoy khimii im. N.D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskogo of the Academy of Sciences USSR)

Card 2/3

The Problem of Producing Cycloheptatriene

S/062/60/000/012/011/020
B013/B054

SUBMITTED: August 8, 1959

✓

Card 3/3

Pryanishnikova, M. A.

5.3400,5.1320

77659
Sov/DO-33-2-34/52

A 4
AUTHORS:

Bolikova, N. A., Vol'fson, L. G., Kuznetsova, K. B.,
Mal'nikov, N. N., Person, A. I., Plate, A. F.,
Pryanishnikova, M. A.

TITLE:

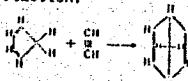
Concerning the Isolation of Aldrin and Dieldrin

PERIODICAL:

Zhurnal prikladnoy khimii, 1960, Vol. 33, No. 2,
pp 454-463 (USSR)

ABSTRACT:

The article describes the synthesis of aldrin and dieldrin based on information gathered from foreign patent literature and on the authors' studies of the basic reaction of hexachlorocyclopentadiene with bicyclo-(2,2,1)-heptadiene-2,5. The latter was synthesized in a continuous flow installation, according to the reaction:



Card 1/6

VOLODKOVICH, S.D.; MEL'NIKOV, N.N.; PLATE, A.F.; PRYANISHNIKOVA, N.

Organic insecticides and fungicides. Part 35: Interaction of 1,1-difluotetrachlorocyclopentadiene with some unsaturated compounds.
Zhur. ob. khim. 28 no.11:3123-3126 N '58. (MIRA 12:1)

1.Nauchnyy institut po udobreniyam i insektifungitsidam i Institut
organicheskoy khimii AN SSSR.
(Cyclopentadiene) (Unsaturated compounds)

CATEGORY : Pharmacology, toxicology, not otherwise specified

ABSTRACT JOURN. : PZBiol., No. 12 1958, No. 56694

AUTHOR : Sivashinskaya, N.T.

ABSTRACT : The action of urotropin on the eye, identifying the anesthetic action of novocaine

ORIG. PUB. : Farmakol. i Toksikologiya, 1957, Vol. 29, No. 2, 45-49

ABSTRACT : 112 experiments were performed on 60 rabbits. Upon application to the cornea of the rabbit (method of Klychevalet and Tamoylov) of 1-3% solution of novocaine (I) in 2.5% solution of urotropin, better results are obtained than with anesthesia using solutions of I in physiologic saline (longer by 15-25 min and more adequate - 11-12 points instead of 3-5). Using the exposed sciatic nerve of the frog (by the method of Tyurk), no difference in the action of these solutions of I could be detected. Addition of urotropin to 0.125-0.25 percent solutions of I reduced its anesthetizing properties. -- F.G.Sivashinskaya

CARD: 1/1

GERTSRIKEN, S.D.; PRYISHNIKOV, M.P.

Parameters of self-diffusion of iron in the δ -range of iron and iron
alloys with small additions of aluminum. Sbor. nauch. rab. Inst.
metallofiz. AN URSR no.10:68-73 '59. (MIRA 13:9)
(Iron) (Diffusion)

"APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001343420014-9

GERTSRIKEN, S.D.; PRYANISHNIKOV, M.P.

Effect of hydrostatic compression on all sides on the speed of self-diffusion at boundaries. Sbor. nauch. rab. Inst. metallofiz. AN URSR no.10:74-76 '59. (MIRA 13:9)

(Iron--Testing)

(Diffusion)

APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001343420014-9"

BOBROV, A.R.; SIBIRYAKOV, A.A.; AKATNOV, I.N.; BIL'DE, A.E.; KOZIN, A.I.,
GROSMAN, I.S.; BASKAKOV, A.I.; YATSYSHIN, A.M.; TRUNOV, A.F.;
KUTUZOV, N.L.; VICHIK, Ya.B.; CHUMBAROVA, A.A.; FRYAZHIN, R.I.;
ZINOV'YEV, N.I.; MIKHAYLOVA, S.I.

Georgii Alekseevich Uarov. Muk.-elev.prom. 21 no.1:31 Ja '55.
(Uarov, Georgii Alekseevich, 1898-1954) (MIRA 8:5)

PRYANISHNIKOV, N. D.

N/5
614.12
.P9
1950

Praktikum po organicheskoy khimii (Laboratory manual in organic chemistry)
2 izd. Pod red. A. Ye. Uspenskiy. Moskva, Goskhimizdat, 1950.
245 p. diagrs., tables.

PRYANISHNIKOVA, M.T.

Problem of the prolongation and intensification of the anesthetic action of novocaine. Farm. i toks. 20 no.2:45-49 Mr-^{Ap} '57.
(MLRA 10:8)

1. Laboratoriya obshchey farmakologii (zav. - prof. G.A.Ponomarev)
Instituta farmakologii i eksperimental'noy khimioterapii AMN SSSR
(PROCaine, anesthesia and analgesia,
prolongation & intensification in animals (Rus))

PRYANISHNIKOVA, N.T.

Xylocaine-analogue anesthetics [with summary in English]. Farm.
i toks. 20 no.6:27-33 N-D '57
(MIRA 11:6)

1. Laboratoriya obshchey farmakologii (zav. - prof. G.A. Ponomarev)
Instituta farmakologii i khimioterapii AMN SSSR.
(LIDOCAINE, rel. cpds.
pharmacol.(Rus))

AMITIN, V.I.; PRYANISHNIKOVA, N.T.

Terminal novocaine anesthesia of the mucous membranes. *Eksp. Khir.* 4 no.2:36-38 Mr-Ap '59. (MIRA 12:5)

1. Iz laboratorii obshchey farmakologii (zav. - prof. G.A. Ponomarev) Instituta farmakologii i khimioterapii AMN SSSR i kliniki bolezney ukh, gorla i nosa Moskovskogo ordena Lenina meditsinskogo instituta (dir. - prof. A.G.Likhachev).

(ANESTHESIA, REGIONAL,
terminal procaine anesth. of mucous membranes
(Rus))

PHYANISHNIKOVA, N.T.

Pharmacology of mesocaine. Farm. i toks. 22 no.2:138-143
Mr-Ap '59. (MIRA 12:6)

1. Laboratoriya obshchey farmakologii (zav. - prof. G.A.
Ponomarev) Instituta farmakologii i khimioterapii AMN SSSR.
(ANESTHETICS, LOCAL,
mesocaine, pharmacol. (Rus))

17(3)
AUTHORS:

Pryanishnikova, N. T., Pchelin, V. A. SOV/20-126-6-58/67

TITLE:

On the Relation Between the Anesthetizing Properties of Anesthetics and Their Surface Activity (O svyazi mezhdu anesteziyushchimi svoystvami anestetikov i ikh poverkhnostnoy aktivnost'yu)

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 6, pp 1358-1361
(USSR)

ABSTRACT:

The problem of the mechanism of action of the substances mentioned in the title is still insufficiently investigated. It is only evident that at least 2 factors are important in this mechanism: a) the capacity of anesthetics to be adsorbed on the cell surface, and b) their interaction (chemically speaking) with structures of the receptor. Many investigations have already been carried out concerning the relation between chemical structure and biological effect of anesthetics. It became apparent that the anesthetizing activity of a compound depends on the presence of an aromatic acid in its molecule. This acid is linked to the nitrogen-containing main group by means of an ester binding or a binding which is isosteric to the ester binding. The interdependence of the structure and

Card 1/3

On the Relation Between the Anesthetizing Properties of Anesthetics and Their Surface Activity SOV/20-126-6-58/67

the first phase of the biological effect, i.e. the penetration of the substance to the place of reaction and its adsorption on the cell surface, has, in spite of its importance, not yet been determined. A survey on literature is given (Refs 1-9, 11, 14, 16), in which the contradictory results of individual authors are noticed. Thus the question of the interdependence of the anesthetizing effect and the surface properties of anesthetics cannot be regarded as completely solved. The present investigation presents a further comparison between these 2 factors in the case of various anesthetics. The terminal anesthesia was studied on the cornea of a rabbit according to the Ren'ye-Valet method. New compounds were investigated: Ksilokain (xylocaine), Mezokain (mezocaine = derivatives of di- and trimethyl anilides), Oksikain (oxycaaine) Nr 4 and Nr 12 (ester derivatives of the paraoxy benzoic acids), as well as novocaine, cocaine, dicaine, and sovcaine. It was proved that oxycaaines, sovcaine, dicaine, mesocaine, and xylocaine have a high surface activity. Their order in regard of the decreasing above mentioned activity is the one given above. They are followed by cocaine and novocaine (Fig 1).

Card 2/3

On the Relation Between the Anesthetizing Properties
of Anesthetics and Their Surface Activity SOV/20-126-6-58/67

There is a symbiotic dependence between their capacity of effecting a terminal anesthesia and the surface activity of the said substances (Table 1, Fig 2). There exists a parallelism between these two indexes. With the increase of the pH from 5.0 to 7.0 the effect of all anesthetics on the surface tension increases in which case the order of substances remains unchanged at these two pH values. The parallelism is not always very marked but results point to a direct relation between the said properties. They are higher in free bases than in the case of anesthetics in cation form. There are 2 figures, 1 table, and 16 references, 2 of which are Soviet.

ASSOCIATION: Institut farmakologii i khimioterapii Akademii meditsinskikh nauk SSSR (Institute of Pharmacology and Chemotherapy, Academy of Medical Sciences, USSR). Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

PRESENTED: March 19, 1959, by P. A. Rebiner, Academician

SUBMITTED: February 16, 1959
Card 3/3

PRYANISHNIKOVA, N.T., Prinimala uchaatiy. IZRAELIT, M.A.

Distribution coefficient of anesthetics at the boundary line of solid
and liquid phases of the sciatic nerve in rabbits. Dokl. AN SSSR 163
no.2:507-510 Jl '65. (MIRA 18:7)

1. Nauchno-issledovatel'skiy institut farmakologii i khimioterapii
AMN SSSR (for Pryanishnikova). 2. Pervyy Moskovskiy meditsinskiy institut
(for Izraelit), Submitted July 10, 1964.

ACCESSION NR: AP5018750

UR/0020/65/163/002/0507/0510

AUTHOR: Pryanishnikova, N.T.

TITLE: Distribution ratio of anesthetics at the solid-liquid interface of the sciatic nerve of the rabbit

SOURCE: AN SSSR. Doklady, v. 163, no. 2, 1965, 507-510

TOPIC TAGS: sciatic nerve, anesthetic distribution, anesthetic absorption

ABSTRACT: The authors compared the activity and distribution ratio in the sciatic nerve of the rabbit of anesthetics belonging to various chemical categories; derivatives of p-amino-benzoic acid (novocaine), p-butylaminobenzoic acid (tetracaine), p-alkoxybenzoic acid (oxyacaine No. 12), phenylpiperidinol (P preparations No. 1 and No. 2), benzoylecgonine (cocaine), α -butoxycinchoninic acid (Sovcaine), phenothiazine (diphazine) and aromatic amines (xylocaine, trimecaine). In each experiment, the time dependence of the absorption of the anesthetic by the nerve was determined. The curves representing this dependence were similar in character. The following formula was derived for calculating the distribution ratio of an anesthetic:

$$K_p = \frac{C_{\text{ax}}}{C_{\text{ml}}} = \frac{d_{\text{ax}}}{3.67} \left[\frac{10V}{P} \left(\frac{C_1}{C_0} - 1 \right) - \frac{6.33}{d_{\text{ml}}} \right].$$

Card 1/3

ACCESSION NR: AP5018750

where d_s is the density of the solid phase of the nerve, d_1 is the density of the liquid phase of the nerve (assumed to be 1), C_1 and C_2 are respectively the initial and final concentration of the anesthetic in the solution (in mg per 100 ml), V is the volume of the anesthetic before immersion of the nerve therein (in ml), and P is the weight of the nerve (in g). The lipoidophilicity and anesthetizing effect of the anesthetics were determined. The data obtained show that the distribution ratios, determined on a homogeneous lipoid phase simulating nerve tissue and on the solid phase of the nerve, are different. Apparently, when an anesthetic is distributed throughout a nerve, in addition to the solubility in lipoids, other factors are operative, one of which is the surface activity of the substances. The order in which the anesthetics studied are arranged with respect to the distribution ratio and surface activity is the same. "M.A. Izraelit, on the staff of the Pervyy Moskovskiy meditsinskiy institut (First Moscow Medical Institute) participated in the work. In conclusion, I express my deep appreciation to acad. P. A. Rebinder, Prof. V.V. Zakusov, and Z.N. Markina for valuable suggestions."

Orig. art. has: 1 figure, 1 table, and 1 formula.

Card 2/3

ACCESSION NR: AP5018750

ASSOCIATION: Nauchno-issledovatel'skiy institut farmakologii i khimioterapii Akademii meditsinskikh nauk SSSR (Scientific Research Institute of Pharmacology and Chemotherapy, Academy of Medical Sciences SSSR)

SUBMITTED: 09Jul64 ENCL: 00 SUB CODE: LS

NO REF SOV: 002 OTHER: 013

Card 3/3

OROBCHENKO, Ye.V.; VEPRINSKAYA, M.N.; PRYANISHNIKOVA, N.Yu.

Utilization of the still residues of synthetic fatty acids in the production of polymeric materials. Masl.-zhir.prom. 28 no.8:27-28 Ag '62.
(MIRA 17:2)

1. Ukrainskiy nauchno-issledovatel'skiy institut plasticheskikh mass.

S/081/63/000/002/081/088
B117/B186

AUTHORS:

Orobchenko, Ye. V., Pryanishnikova, N. Yu., Mikhaylov, V. S.

TITLE:

Investigation of the possibility of replacing fat by other substances in the synthesis of modified alkyd resins.
Communication I. Synthesis of glyptal resins modified by distillation residues of synthetic fatty acids and tall oil

PERIODICAL:

Referativnyy zhurnal. Khimiya, no. 2, 1963, 571, abstract
2T278 (Lakokrasochn. materialy i ikh primeneniye, no. 3,
1962, 48-49)

TEXT: The azeotropic method was used to synthesize glyptal resins at 200-220°C that had been modified by distillation residues of synthetic fatty acids (I) (composition and analytical indices given), and of a mixture of (I) with distilled tall oil (II). It was found that glyptal resins with ~50% fattiness, suitable for varnishes and enamels, could be obtained by two recipes: (1) (I) 37.7%, (II) 18.2%; (2) (I) 18%, (II) 30% with addition of 16.1 and 16%, respectively, of glycerol and 28.3 and 28.0%, respectively, of phthalic anhydride. Enamels on the basis of the

Card 1/2

Investigation of the possibility ...

3/081/63/000/002/081/086
B117/B186

glyptal resins mentioned do not differ from enamels on the basis of the ΦΠΙΙ/B-2 (FP/v-2) varnish so far as concerns drying, elasticity, impact strength, and waterproofness. They exceed the latter in hardness but their colors are less intense. [Abstracter's note: Complete translation.]

Card 2/2

I-04821-87 EMP(j)/ENT(m) NM
ACC NR: AP6006720 (A)

SOURCE CODE: UR/0303/66/000/001/0018/0020

AUTHOR: Orobchenko, Ye. V.; Pryanishnikova, N. Yu.; Gubenko, R. V.

ORG: None

TITLE: Paint and varnish materials based on carbamide-alkyd resins

SOURCE: Lakokrasochnye materialy i ikh primeneniye, no. 1, 1966, 18-20

TOPIC TAGS: varnish, urea resin, alkyd resin

ABSTRACT: The paper describes the synthesis of carbamide-alkyd varnishes from glyptal resins containing no fats. The carbamide component used was K-411-02 butanolized urea-formaldehyde resin. The varnishes were prepared by mixing this resin in the cold with a 50% toluene solution of the alkyd resin. A study of the physicomechanical properties of the carbamide-alkyd films dried for 1 hr at 120°C showed that their impact strength and hardness increase with the acid number of the alkyd resin. When the content of the carbamide component exceeds 80%, the impact strength decreases; when the resin content drops below 50%, the films cease to dry. The optimum physicomechanical properties are obtained when the components of the carbamide-alkyd resins are taken in the proportion of 1:1. It is shown that by using glyptal resins modified with C₂₀ and higher synthetic fatty acids and with distilled tall oil in combination with butanolized urea-formaldehyde resin, one can obtain enamels and primers forming stable atmosphere-resistant hot-drying coatings, whereas glyptal resins modified with

17
B

Card 1/2

UDC: 667.633.263.3

ACC NR: AP6006720

O
 C_7-C_9 synthetic fatty acids in combination with butanolized urea-formaldehyde resin can be used to prepare colorless varnishes and a hot-drying white enamel for inner and outer coatings. Orig. art. has: 2 figures and 5 tables.

SUB CODE: 11/ SUBM DATE: none

Card 2/2 *sl*

PRYANISHNIKOVA, N. T.; SHAROV, N. A.

Comparative study of the activity of trimecaine and novocaine
in infiltration anesthesia. Eksper. khir. i anest. no.2:83-86
'62. (MIRA 15:6)

1. Iz laboratorii obshchey farmakologii (zav. - prof. G. A.
Ponomarev) Instituta farmakologii i khimioterapii AMN SSSR i
kliniki gospital'noy khirurgii (zav. - prof. A. N. Kartavenko)
Smolenskogo meditsinskogo instituta.

(NOVOCAINE) (ANESTHETICS)

PRÝANISHNIKOVA, N.T.

Effect of anesthetics on monomolecular layers of stearic acid.
Dokl. AN SSSR 141 no.5:1228-1231 D '61. (MIRA 14:12)

1. Nauchno-issledovatel'skiy institut farmakologii i khimioterapii
Akademii meditsinskikh nauk SSSR. Predstavлено akademikom P.A.
Rebinderom.

(STEARIC ACID) (ANESTHETICS)

OROBCHENKO, Yevgeniy Vasil'yevich; PRYANISHNIKOVA, Nadezhda Yur'yevna;
GKEKOV, A.P., kand. khim. nauk, retsenzent; BULGAKOVA, N.B.,
inzh., red.izd-va; ROZUM, T.I., tekhn. red.

[Furan resins] Furanovye smoly. Kiev, Gostekhizdat USSR,
1963. 167 p. (MIRA 17:2)

E 23571-65 EPA(s)-2/EWT(m)/EPF(c)/FCG/EPF(n)-2/EWG(v)/EPR/EWP(j)/T/EPA(bb)-2/
EWG(h)/EWA(1) / β C-4/Pe-5/Pr-4/Ps-4/Pt-10/Peb/Pu-4 WW/RM

AM4037182

BOOK EXPLOITATION

S/

B7

Orobchenko, Yevgeniy Vasil'evich; Pryanishnikova, Nadezhda Yur'yevna

Furan resins (Furanovye smoly). Kiev, Gostekhizdat USSR, 1963.

167 p. illus., biblio. 1650 copies printed.

TOPIC TAGS: synthetic resin, furan resin, furan polymers, dihydrofuran, tetrahydrofuran, 2-furaldehyde, furfuryl alcohol, furan resin technology, plastics, raw materials, heat-resistant polymers, heat resistance, thermal stability, thermosettable polymers

PURPOSE AND COVERAGE: This book is intended for scientists, engineers, and technicians concerned with the manufacture and application of plastics. The handbook covers the chemistry and technology of synthetic resins based on 2-furaldehyde, furfuryl alcohol, and other furan derivatives. The use of such resins for the production of synthetic polymeric materials is also discussed, e.g., resins of higher thermal stability (at 300, 530°C—Itinskiv, Kamenskiv; for brief periods over 3500°C—Oster-Volkov) and chemical stability. Soviet trademarks and production specifications (VTII - temporary specifications) are included. The text is based on Western and

Card 1/2

L 23571-65

AM4037182

Soviet-bloc sources, among which are 22 Soviet and 65 Western patents.

TABLE OF CONTENTS [Abridged]:

Introduction -- 3

Ch. 1. Chemical characteristics of compounds of the furan series as initial products for the synthesis of polymers -- 6

Ch. 2. Resins based on 2-furaldehyde (with phenols, ketones, amines, urea, etc.) -- 38

Ch. 3. Resins based on furfuryl alcohol (with phenols, formaldehyde, urea, melamine, etc.) -- 108

Ch. 4. Resins based on other compounds of the furan series -- 137

References -- 160

SUB CCDE: CH, MA

SUBMITTED: 27Sep63

NO REF SCW: 082

OTHER: 162

Card 2/2

L 25064-65 EWT(m)/EPF(c)/EWP(j)/T Pe-4/Pr-4 RM
ACCESSION NR: AP5002213 S/0303/64/000/006/0014/0016

27
25
B

AUTHOR: Orobchenko, Ye. V.; Pryanishnikova, N. Yu.; Gubenko, R. V.

TITLE: Lacquers and enamels based on oiliness alkyd resins modified with synthetic fatty acids having 20 or more carbon atoms

SOURCE: Lakokrasochnyye materialy i ikh primeneniye, no. 6, 1964, 14-16

TOPIC TAGS: lacquer, enamel, alkyd resin, glyptal resin, fatty acid, phthalic anhydride, tallow oil

ABSTRACT: Experiments were carried out on the production of synthetic glyptal or alkyd enamel resins modified with C20 fatty acids from the Volga-Don Combine in order to expand the market for natural fat substitutes. After several attempts to produce a resin which would combine well with pigments and could be stored without solidifying failed, a mixture of 26.7% phthalic anhydride, 19.6% glycerol, 18% synthetic fatty acid and 35.7% tallow oil was found most advantageous. The product has a low acid number, polymerization takes place in 150-240 seconds, and it is readily soluble in either white spirit or toluene. When dissolved in xylenes, the resin makes a lacquer with an acid number of 5, a viscosity of 15 sec. at 18 - 20°C, 50% solid residue and a drying time of 2 hours when 10% desiccant is

Card 1/2

L 25064-65

ACCESSION NR: AP5002213

2

added. The process required esterification by glycerol at 180 - 200C for half an hour and then condensation at 240C for 2.5 - 4 hours. After drying for 2 hours at 120C, the lacquer had good hardness, elasticity, and resistance to water, gasoline, electricity and pressure, as required by GOST 8018-56. It is now used in making blue, brown and red enamels which are better in some ways than the FSKh brand used on farm machinery, and which conform to GOST 926-52. Orig. art. has: 9 tables and 1 graph.

ASSOCIATION: None

SUBMITTED: 00

ENCL: 00

SUB CODE: MT

NO REF SOV: 001

OTHER: 000

Card 2/2

"APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001343420014-9

PRYANISHNIKOV, S. N.

"Influence of the Periods of Sowing Red Clover on the Yield of Hay and Grain."

All-Union Sci Res Inst of Fodder imeni V. R. Vil'yams, Moscow, 1955

(Dissertation for the Degree of Candidate of Agricultural Sciences)

SC: Knizhnaya Letopis', No. 32, 6 Aug 55

APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001343420014-9"

"APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001343420014-9

KUZNETSOV, V. I.; BOROK, B. A.; GOFNER, A. N.; KUTIS, M. I.; PRYANISHNIKOV, S. S.,
PRYANISHNIKOV, S. S.

"The highly effective electrodes for arc electric welding," Industrial Energetics,
1951.

APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001343420014-9"

KAPLAN, G.Ye.; MACHINSKIY, A.V.; YAKUBOVICH, I.A.; USPENSKAYA, T.A.;
PRIANISHNIKOVA, T.V.

Effect of hyperfine comminution on the course of solid phase
reactions. Zhur.prikl.khim. 36 no.1:95-101 Ja '63. / (MIRA 16:5)
(Granulated materials) (Sintering).

S/080/63/036/001/009/026
D204/D307

AUTHORS:

Kaplan, G. Ye., Machinskiy, A.V., Yakubovich,
I.A., Uspenskaya, T.A. and Pryanishnikova, T.V.

TITLE:

The effect of superfine grinding on solid
phase reactions

PERIODICAL:

Zhurnal prikladnoy khimii, v. 36, no. 1.
1963, 95 - 101

TEXT:

A brief review of solid phase reactions is
first given, concluding that sintering processes occur as a result
of mass exchange in the solid and particularly in the liquid and
gaseous phases. Vibration and jet grinders are considered to be
most effective. To study the sintering reactions of some ore con-
centrates the authors used superfine grinding to ensure a large
reactive area, and further ground the fines together to ensure
maximum intermixing. The grain size was of the order of 1 μ . Such
treatment allows the reactions to go almost to completion at tem-
peratures considerably below the usual temperature used for such

Card 1/2

S/080/63/036/001/009/026
The effect of superfine grinding ... D204/D307

processes. A few examples are quoted including the decomposition of $ZrSiO_4$ (a) in presence of mineralizers (at 1050 - 1100°C) and (b) after superfine grinding, with a mineralizer (98 - 99 % decomposition at 800 - 900°C). The effect of mineralizers are discussed and the importance of intimate mixing is underlined, quoting the decomposition of zircon in the presence of $CaCO_3/CaF_2$. Solid phase reactions of spodumene with $CaCO_3$ or CaO (reactants ground to 1 μ and mixed in a vibration grinder) took place largely at 820°C, in contrast to ~970°C when the grain size was 70 μ . The products were in a freely flowing form (grain size 0.2 - 1 mm), well suitable therefore to continuous production. Detailed study of such reactions should shed light on the complex mechanisms of solid phase processes. There are 2 figures.

SUBMITTED: September 22, 1961

Card 2/2

PRYANISHNIKOV, V. T.

Pipes and apparatus made of quartz glass
Shumov. Krem. Proc. 1934 No. 15102
Some phys. properties of quartz, opaque transparent
optically transparent glass are discussed. The resistance
to acids, alkalies, salts, and metals at various temps. Are
Given. The fabrication of tubes and app. is described.

PRYANISHNIKOV, V. P.

USSR ✓ 2710. Production of fused-silica blocks.—V. P. PRYANISHNIKOV (*Glass & Ceramics*, Moscow, 12, No. 5, 12, 1933). A detailed description. The SiO_2 is fused in electric

resistance furnaces and the blocks are subsequently tried up by means of SiC wheels.
The main faults in the finished blocks are the cavities and the irregular texture. (2 figs.,
1 table.)

PRYANISHNIKOV, V. P.

310

USSR

670. Problems in the production of quartz glass.—V. P. PRYANISHNIKOV (Glass & Ceramics, Moscow, 11, No. 9, 15, 1954). The manufacture of fused silica (particularly the melting) are discussed in detail. A brief description is given of the electric resistance furnace used and the melting schedule is discussed. Emphasis is on physical and mathematical problems. (6 figs., 1 table.)

PRYANISHNIKOV, V. P.

ASSR.

1649. Vacuum de-watering of quartz sand in mechanical classifiers.—V. P. PRYANISHNIKOV (*Glass & Ceramics*, Moscow, 12, No. 1, 29, 1955). This method—claimed to be simple—consists in using suction for the removal of water. A vacuum chamber is built into the upper part of the bottom of a mechanical classifier. The installation is described and illustrated. It makes the process continuous. The method is also more economical than centrifuging, the power consumption being only 3.6 kWh/ton of dry sand. (3 figs.)

IMT

PRYANISHNIKOV, V.P.

The making of quartz glass bars. Stek. i ker. 12 no.5:
12-14 My '55. (MIRA 8:8)
(Glass manufacture)

"APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001343420014-9

PRYANISHNIKOV, V.P.

Problems of quartz glass production. Stek. i ker. 11 no.9:15-19 S '54.
(Glass manufacture) (MLRA 7:9)

APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001343420014-9"

PRYANISHNIKOV, V.P.

Vacuum desiccation of quartz sands in mechanical graders. Stek.
i ker. 12 no.1:29-30 Ja '55. (MLRA 8:3)
(Sand)(Ceramic industries)

"APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001343420014-9

Родионов, Г. В.

Министерство обороны СССР (Государственное Управление по г. Л. В. Т. и
У. А. Р. Радиоэлектронике и У. А. Р. Радиоэлектронике, Ленинград,
1958 год).

407-я линия, Благов.

APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001343420014-9"

PRYANISHNIKOV V.P.

MARKOVSKIY, I.Ya.; ORSHANSKIY, D.L.; PRYANISHNIKOV, V.P.; KONDAKOV, V.G.,
redaktor; ERLIKH, Ye.Ya., tekhnicheskij redaktor.

[Chemical electrothermics] Khimicheskaja elektrotermija. Pod obshchej
red. D.L.Orshanskogo. Leningrad. Gos.nauchno-tekhn. izd-vo khim. lit-ry,
1952. 407 p. [Microfilm] (MLRA 7:10)
(Electrochemistry, Industrial) (Thermochemistry)

PRYANISHNIKOV, V.P.

Quartz glass tubing and apparatus. Khim.prom. no.1:15-19 Ja-F '54.
(MLRA 7:4)

1. Gosudarstvennyy ordena Trudovogo Krasnogo Znameni farforovyy
zavod im. M.V.Lomonosova.
(Glass) (Chemical apparatus)

PRYANISHNIKOV, V. P.

USSR/ Miscellaneous Glass manufacture

Card : 1/1 Pub. 104 - 6/12

Authors : Pryanishnikov, V. P.

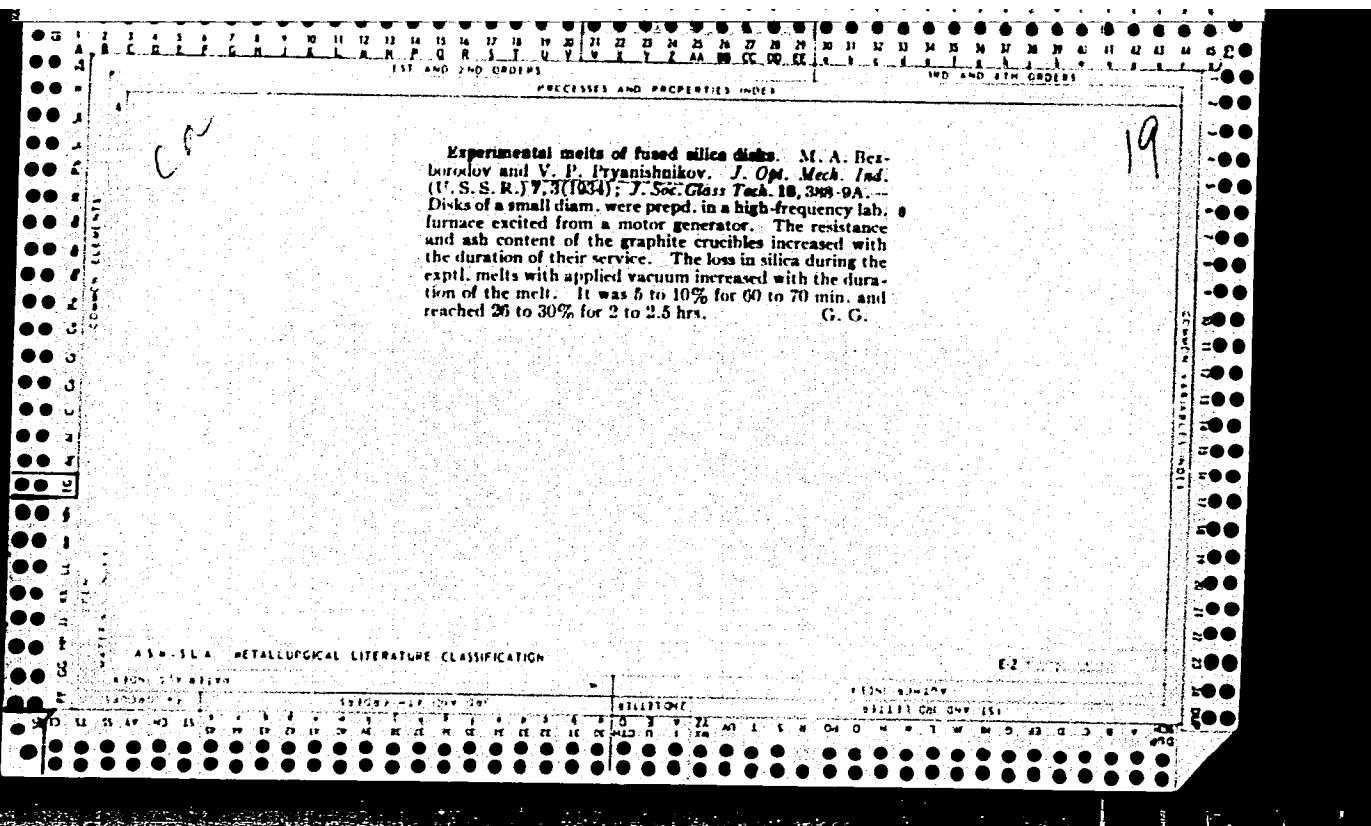
Title : Problems involved in the manufacture of quartz glass

Periodical : Stek. i ker. 9, 15 - 19, September 1954

Abstract : The technical problems involved in the manufacture of quartz fused-glass are discussed. The raw material used for the manufacture of nontransparent quartz glass and method of preparing the raw material are described. Table; graphs; illustrations; drawings.

Institution :

Submitted :



AID P - 760

Subject : USSR/Aeronautics

Card 1/1 Pub. 135 - 6/15

Author : Pryanishnikov, Ye., Guards Capt.

Title : Piloting of aircraft by duplicate instruments

Periodical : Vest. vozd. flota, 11, 36-39, N 1954

Abstract : In case of damage of some navigational or piloting instruments in flight, the necessity may arise of piloting or navigating the aircraft by duplicate instruments. The author indicates how this is done, and stresses the necessity of adequate training. Some examples are given.

Institution : None

Submitted : No date

CR

14

Investigation of the acidity of the soil. A. E. Pryanishnikova and E. N. Gapon. *Vsesoyuz. Akad. Sistem Khoz. Nauk Lenina, Nauch.-Issledovatel. Inst. Udobrenii, Agrotekh i Agropochvovedeniya Gredotsa, Trudy Lenigrad. Otdel.* 1938, Pt. 2, 119-33; *Chem. Zentr.* 1940, II, 2368.—It is not possible to bring the exchange capacity of a soil satd. with H back to its original value by treating with nonbuffered solns. of neutral salts until the pH of the soln. used and the filtrate becomes the same. After oxidation of the humus substances of soils satd. with H, Ca appears in the filtrate in the form of a compd. present in a state of mol. dispersion. If the soil satd. with H is repeatedly treated with H_2O_2 the original adsorptive capacity can be almost completely destroyed. The remaining adsorptive capacity is due to adsorbed Ca ions which show a capacity for exchange after oxidation of the humus. The explanation for this phenomenon is given in a scheme of distribution of the cations and anions of the humus in layers. With podzolic soils satd. with H the adsorptive capacity can be completely reestablished by washing with the nonbuffered soln. of neutral salt. The acidity of podzolic soils is due to humus, adsorbed mineral acids and exchangeable Al_3OH^+ ions. Exchangeable H ions, which are characteristic of acidoids, are not present in podzolic soils. The common adsorption of H and Ca by podzols followed the equation of Gibbs; the stability of the adsorptive capacity was found to depend upon the Ca. This demonstrates that a specific adsorption of OH ions does not take place under these conditions. Podzol under cultivation has a larger buffering capacity than that not under cultivation. With podzol not under cultivation a displacement of 1 unit in pH produces a corresponding change in adsorptive capacity. With podzol under cultivation unit change in pH produces a greater change in adsorptive capacity.

M. G. Moore

ASBESTA METALLURGICAL LTD

PROCESSES AND PROPERTIES NOTE

Absorption of univalent cations by the soil. B. N. Gapon and A. E. Pyramushnikova. *Chimie et Industrie Agricole*, (U. S. S. R.) No. 2, 18-51 (1937); *Chimie & industrie* 40, 589. The adsorption isotherms of Li and Na for a soil satd. with Ca are straight lines meeting at a point which corresponds to the reciprocal of the adsorption capacity of the soil in an unbuffered neutral soln. The relative adsorption of Na is twice as great as that of Li.
A. Papineau-Couture

ASSISTANT METALLURGICAL LITERATURE CLASSIFICATION

Dependence of exchange adsorption on dilution.
R. N. Gapon and A. E. Pyatishnikov, *Voprosy Khimicheskoy Mineralogii i Neftegazovoj Geologii*, No. 1, p. 113 (1973). With increased dilution, NH_4^+ is replaced by Ba^{2+} in Budačinsk black loam; the exchange capacity is 13 mg. equiv. per 100 g. of soil. For Ca, relative to NH_4^+ , the value is 37 mg./100 g., while the absorption capacity is 45.3. The latent Ca ions are equal to 8.3 mg. equiv. per 100 g. of soil.

P. H. Rathmann

AM-SLA-METALLURGICAL LITERATURE CLASSIFICATION

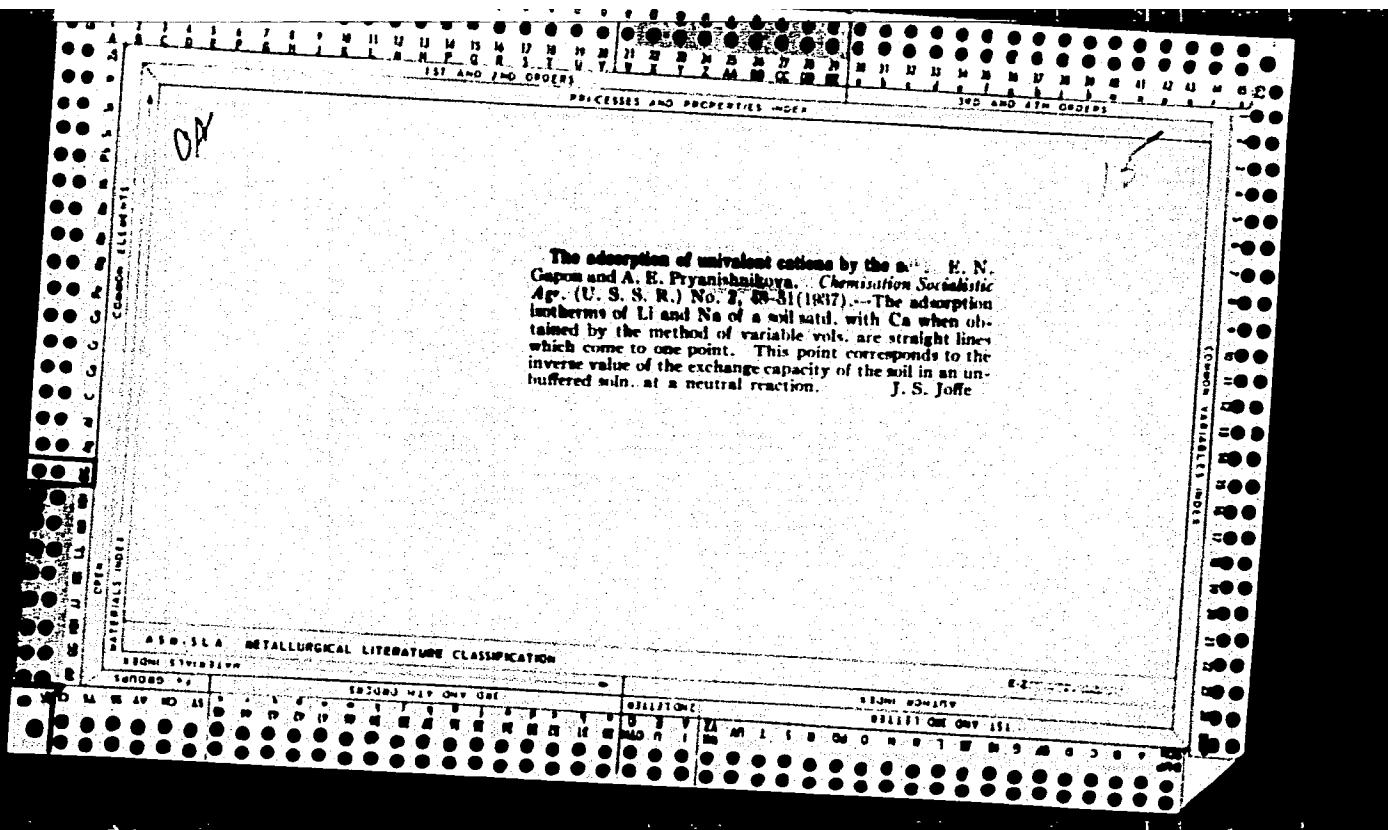
SEARCHED.....

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SEARCHED



PRYANISHNIKOVA, V. T., ROZEN'YER, L. A., and FENNELONOVA, Z. V.

PRYANISHNIKOVA, V. T., ROZEN'YER, L. A. and FENNELONOVA, Z. V. "The treatment of diphtheria with small doses of serum in combination with sulfadine", Trudy Kishinevsk. gos. med. in-ta, Vol. 1, 1949, p. 122-27.

SC: U-3261, 10 April 53 (Letopis - Zhurnal 'nykh Statey No.11, 1949)

SHESTAKOV, A.G., prof., doktor nauk; PRYANISHNIKOV, Z.D., kand. nauk;
NELYUBOVA, G.L., kand. nauk.

Effect of various doses of boron on the flowering and fruiting of
buckwheat. Dokl. TSKhA no.29:35-40 '57. (MIRA 11:8)
(Boron—Physiological effect) (Buckwheat)

CHETVERUKHIN, N.F. Doktor Fiz.-Mat. Nauk; LEVITSKY, Vladimir
Sergeyevich; PRYANISHNIKOVA, Zoya Ivanovna; TEVLIN,
Abram Maksimovich; FEDOTOV, Georgiy Ivanovich

[Descriptive geometry] Nachertatel'naia geometriia. Izd.2.,
perer. i dop. [By] N.F.Chetverukhin i dr. Moskva, Vysshiaia
shkola, 1963. 419 p. (MIRA 17:5)

PRYANISHNIKOVA, Z. I.

Theory and Methods of Evaluation of Measurements

Dissertation: "Investigation of Metric Definiteness (Reversibility) of Projected Representations and Their Application." Cand Tech Sci, Moscow Order of Lenin Aviation Inst imeni Sergo Ordzhonikidze, 22 Mar 54. (Vechernaya Moskva Moscow, 10 March 54)

SO: SUM 213, 20 Sep 1954

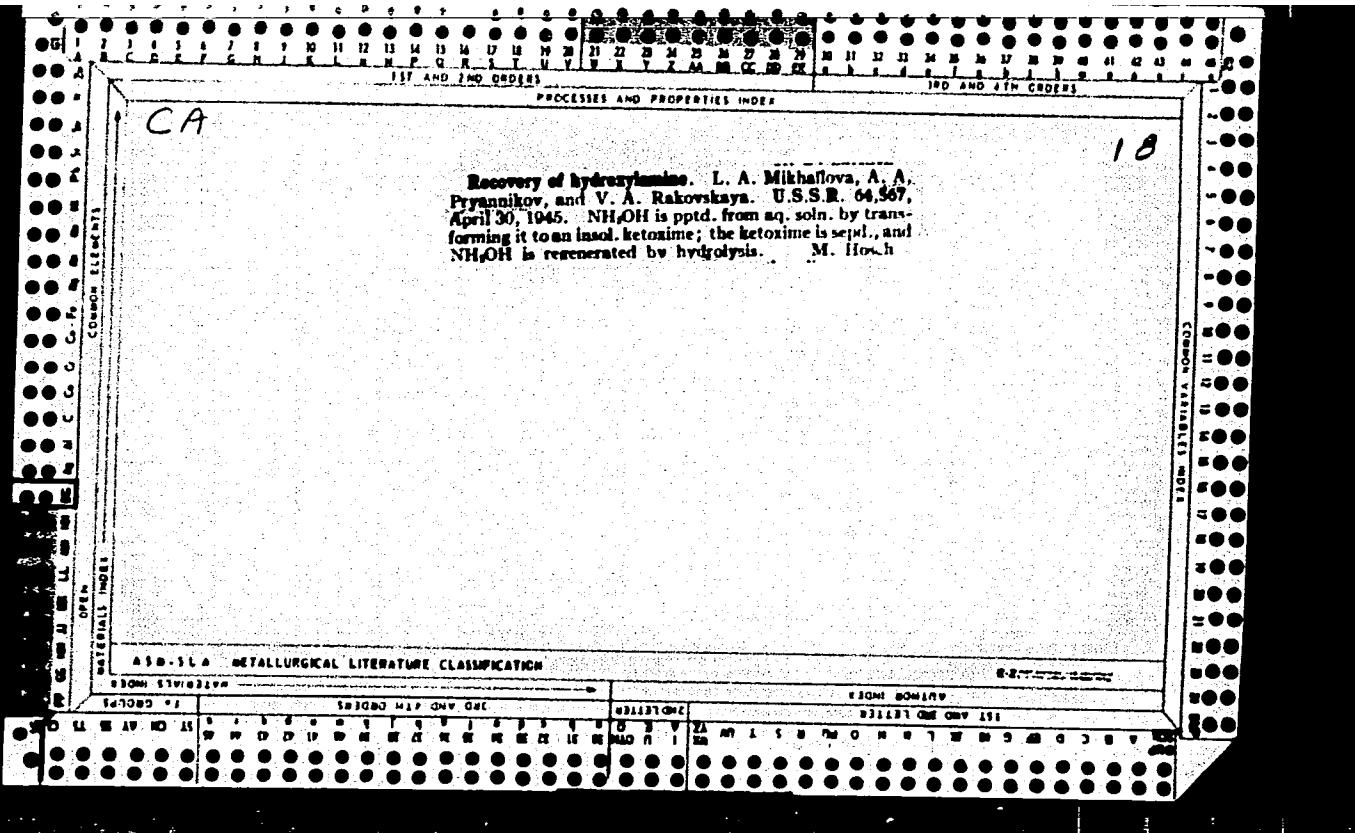
KHRZHANOVSKIY, Vladimir Gennadiyevich, doktor biol. nauk, prof.;
PRYANISHNIKOVA, Zoya Dmitriyevna, dots., kand. biol. nauk;
ISAIN, Vladimir Nikolayevich, dots., kand. biol. nauk;
YURTSEV, Vitaliy Nikolayevich, kand. biol. nauk; KAFYSHEVA,
V.S., red.; MURASHOVA, V.A., tekhn. red.

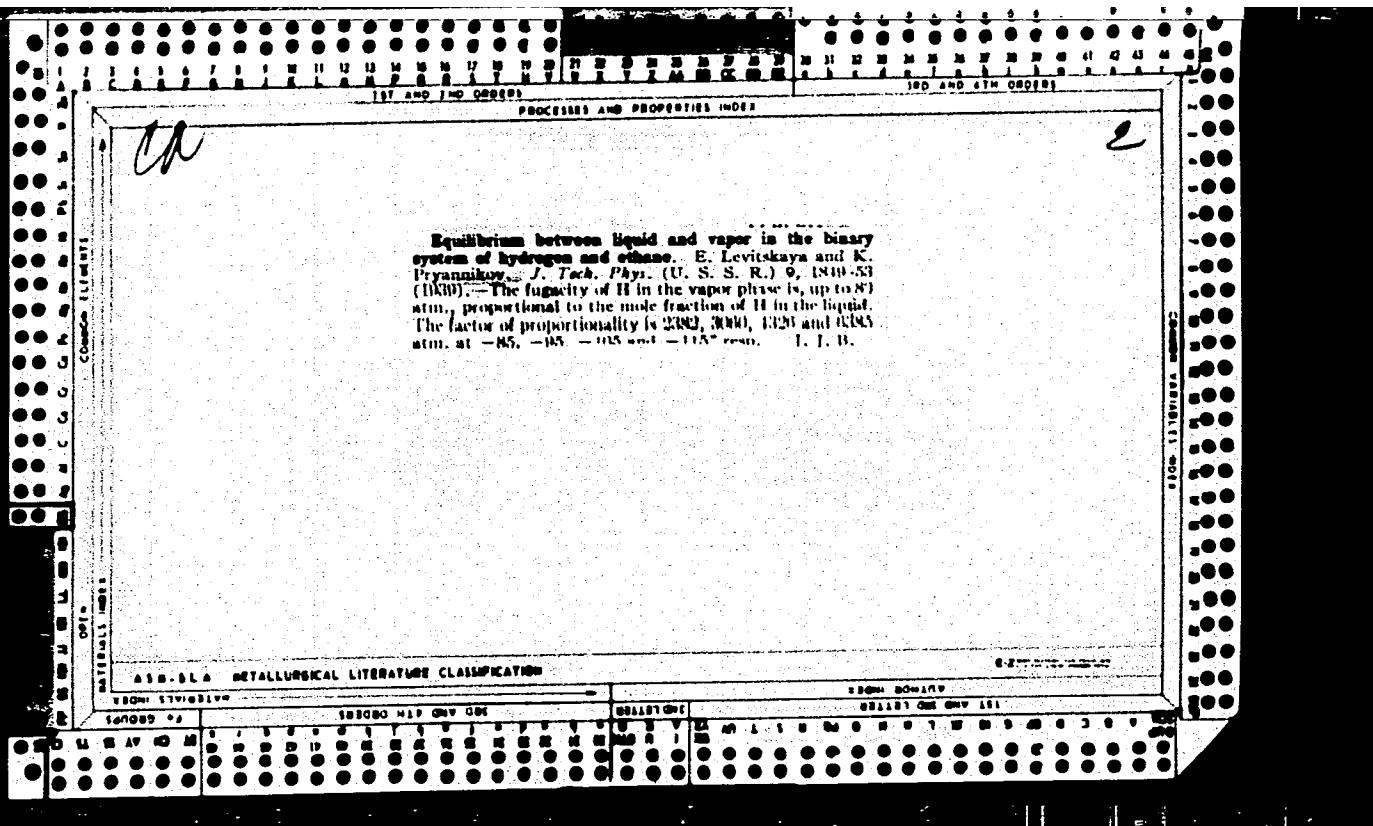
[Practical botany course] Frakticheskii kurs botaniki. Izd.2.
[By] V.G.Khrzhanovskii i dr. Moskva, Gos.izd-vo "Vysshiaia
shkola," 1963. 301 p. (MIRA 17:1)

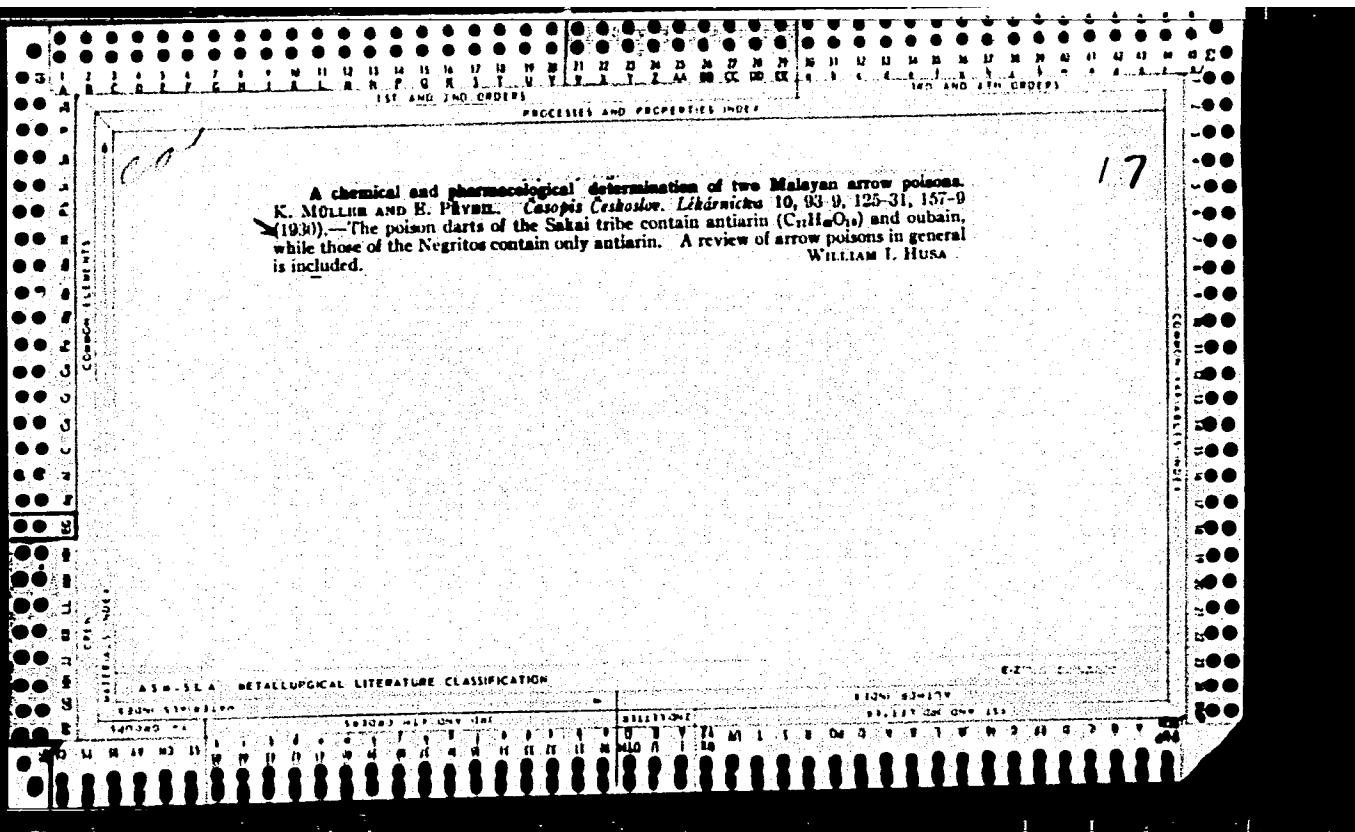
PRZEDPELSKI, Stefan; CHWIAŁKOWSKI, Jerzy

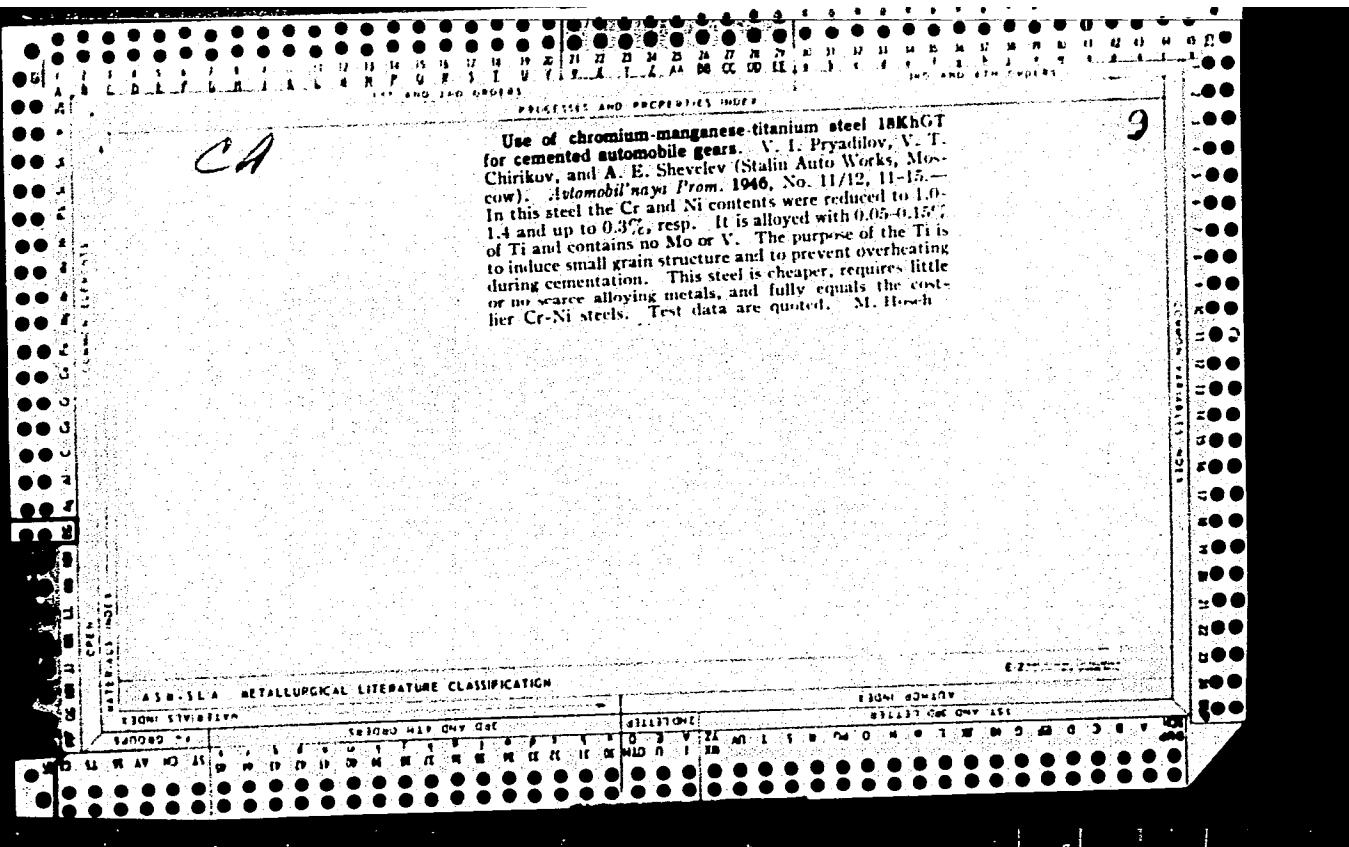
Treatment of perforated gastric and duodenal ulcer. Polski przegl.
chir. 29 no.4:363-368 Apr 57.

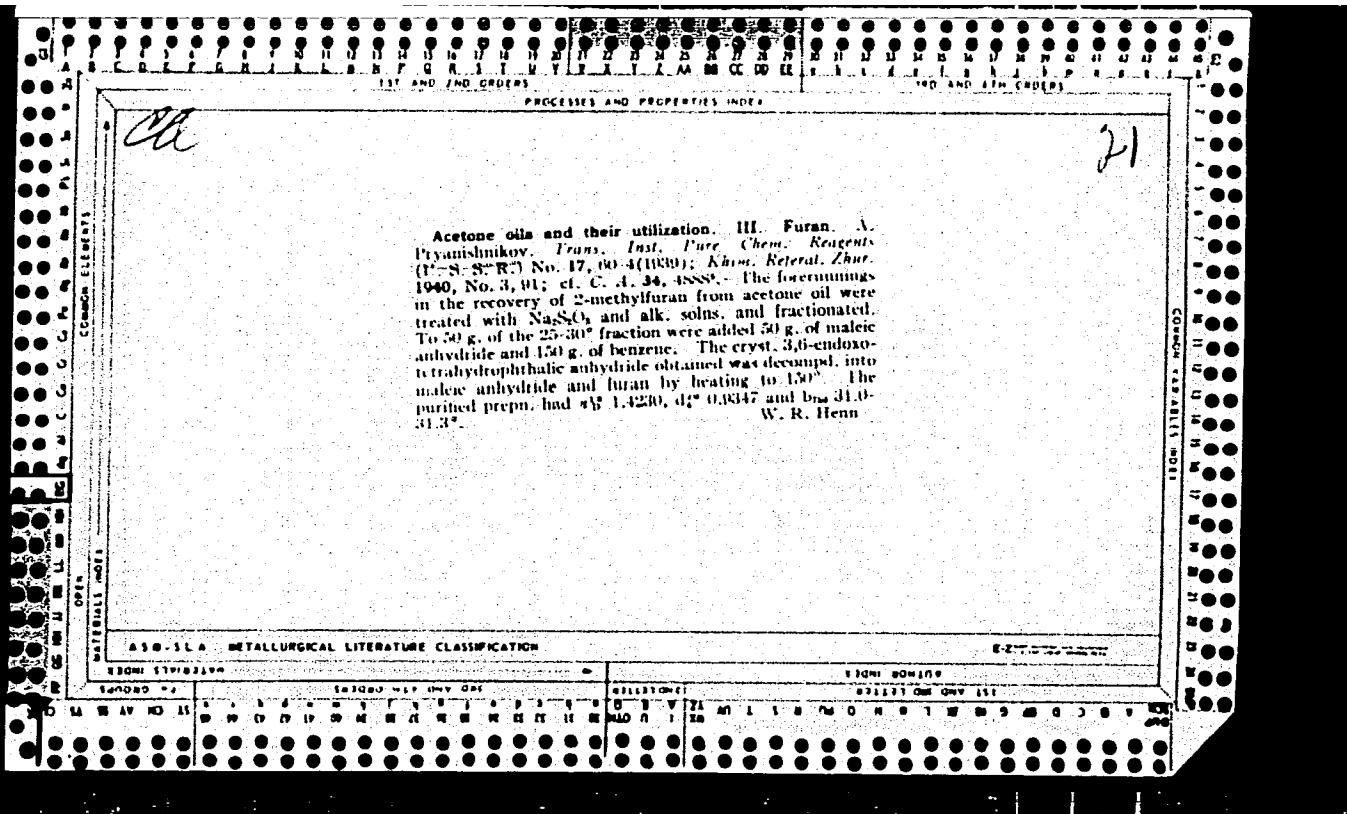
1. z Oddzialow Chirurgicznych Szpitala Miejskiego w Plocku. Adres
autora: Plock, ul. Kosciuszki 28.
(PEPTIC ULCER, perforation,
surg. (Pol))











Acetone oil and its utilization. II. J-Methylbutan (sylvan). A. Pravdinikhov, P. Ernest'ev and V. Kropotkin. *Trans.-Faraday Chem. Reagents* (U. S. S. R.) 1950, No. 10, 80-87; *Khim. Referat. Zhur.* 1950, No. 7, 120-130.—The yield of sylvan from acetone oil was 1.0% and 0.50 kg./ton of acetate powder (according to G. N. Chernko and Antaus (cf. *C. A.* 26, 1893) it was 0.125 kg.). The difference in the results are, probably, connected with the time of standing of the oil. The product was a clear colorless liquid which turned yellow on standing, insol. in water, but produced with benzene a clear soln. During distn. according to Bigler 95% of it distl. between 0° and 86°; n_D 1.4200. The tech. sylvan can be utilized for the prep. of a mixt. of anthracene and carbazole, for the production of 2-methylpyrrole, for the production of aceto-propyl alc., etc. Cf. *C. A.* 30, 2727. W. R. Heyn

APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001343420014-9"

Production of chemical laboratory ware from refractory glass.
A. B. PRYASHEVSKAYA. *Steklo i Keram.*, 7 [11] 10-13 (1950) — The batch is melted in an oil fired periodic tank designed by G. A. Udrovenco and capable of producing 1480° to 1700°C. The tank campaign is 5 to 7 months followed by cold repairs during which the tank, port inlets and mixing chambers, suspended walls and cast iron supports, and regenerator nozzles are replaced. The crown and bottom are replaced after 2 or 3 campaigns. Substitution of quartz blocks for Dinas to a depth of 100 mm. in the tank improved the quality of the glass and should prolong the life of the tank to at least 1 year. The batch was charged at 1510° to 1570°C., melted at 1600° to 1620°, and worked at 1540° to 1480°. The composition of the glass was SiO₂ 79.5, Al₂O₃ 1.0, B₂O₃ 12.5, CaO 0.5, Na₂O 4.5, and K₂O 2.0%. It was impossible to make quality glass for some time because of stones, cords, schlieren, and frequent devitrification of the whole surface of the melt. Consequently, the composition was changed to glass of SiO₂ 81.0, Al₂O₃ 2.2, B₂O₃ 11.7 to 12.0, CaO 0.3, MgO 0.0, Na₂O 3.4, and K₂O 1.0%. The batch was melted at 1680° and worked at 1600° to 1580°. These high temperatures caused silica blocks to soften and undergo rapid destruction; a silica "paste", forming at the blocks gradually penetrated the melt. It was necessary to remove the foam and place fire-clay booms in the melt which were discarded at the end of the working operation. Small ware (100 to 800 ml.) is made semiautomatically. Cross sections of the tank are included. B.Z.K.

Ketone oils and their utilization. I. Methyl ethyl
ketone and methyl propyl ketone. A. A. Pyramishnikov.
Lesokhimicheskaya Prom. 3, No. 5 6, 3-7 (1934).
A. A. Bochtingk

Ca

✓

AS-SLA METALLURGICAL LITERATURE CLASSIFICATION

SOKOLOV, M.M.; FEDOROV, S.P., starshiy nauchnyy sotrudnik; PRYANISHNIKOVA,
M.N., inzhener

New examples of surgical hammers. Ortop. travm. i protez. 17 no.6:
56-57 N-D '56. (MIRA 10:2)

1. Iz Nauchno-issledovatel'skogo instituta eksperimental'noy khirurgicheskoy apparatury i instrumentov Minzdrava SSSR (dir. - M.G.Anan'yev)
(SURGICAL, OPERATIVE, appar. and instruments
hammer)

PRYANISHNIKOV, N. A.

Quantitative determination of acetone, butyl alcohol, and ethyl alcohol when present together. B. M. Nakhmanovich and N. A. Pryanishnikova. Zavodskaya Lab. 23, 165-1837. A method for detg. acetone and alcs. in fermentation products of the acetone-BuOH manuf. is based on their oxidation with $K_2Cr_2O_7$ in the presence of H_2SO_4 . The BuOH oxidation and $K_2Cr_2O_7$ consumption increase at higher H_2SO_4 concns. BuOH is quantitatively oxidized to AcOH within wide limits of acid concn. and length of heating to 100°. To oxidize under "mild" conditions, 10 ml. $N\ K_2Cr_2O_7$ and 5 ml. concd. H_2SO_4 are placed in a 250-ml. Erlenmeyer flask, the soln. is cooled, and 10 ml. of the soln. is added from a pipet; the flask is connected to a reflux condenser and heated on a boiling water bath for 5 min. Twenty ml. cold distd. water is then added through the condenser, and the excess of $K_2Cr_2O_7$ is detd. iodometrically. For oxidation under "severe" conditions, 18 ml. concd. H_2SO_4 and $K_2Cr_2O_7$ are added to the same amt. of sample, and the sample is treated as before, but heating with boiling water must be continued for 15 min. $K_2Cr_2O_7$ consumption under mild and severe oxidation conditions, resp., were: acetone 0.36, 8.05; BuOH 3.52, 11.26; and EtOH 4.25, 4.25 ml. N soln./g. substance. Oxidation results under mild and severe conditions give, therefore, 2 equations for the detn. of the 3 unknowns; direct titration of acetone by oxidation with I^- followed by $Na_2S_2O_3$ titration gives the 3rd equation.

W. M. Sternberg

GERTSRIKEN, S.D.; PRYANISHNIKOV, M.P.

Dependence of self-diffusion parameters on the type of crystal
lattice and the presence of small additions of a second com-
ponent. Issl.po zharopr.splav. 4:123-133 '59.
(MIRA 13:5)
(Diffusion) (Crystal lattices)